

## (12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
2 December 2004 (02.12.2004)

PCT

(10) International Publication Number  
**WO 2004/105249 A2**

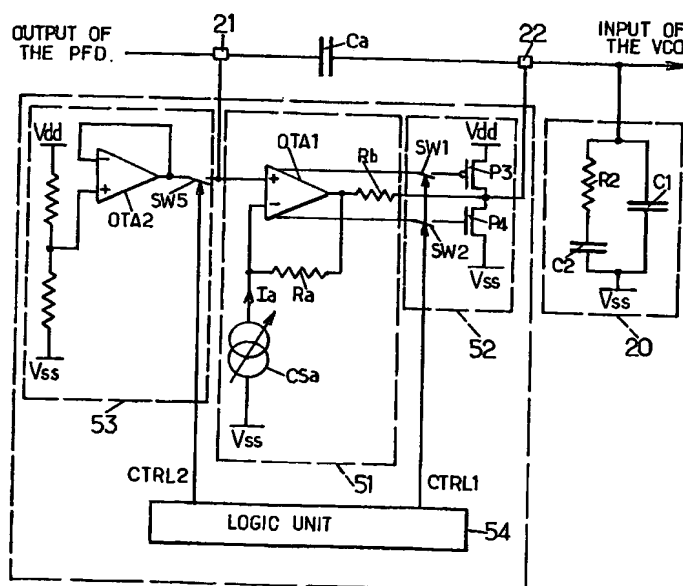
- (51) International Patent Classification<sup>7</sup>: **H03L 7/187**
- (21) International Application Number:  
PCT/EP2004/006063
- (22) International Filing Date: 17 May 2004 (17.05.2004)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:  
03/06145 22 May 2003 (22.05.2003) FR
- (71) Applicant (for all designated States except US): **EADS TELECOM** [FR/FR]; Rue Jean-Pierre Timbaud, Batiment Jean-Pierre Timbaud, F-78180 Montigny Le Bretonneux (FR).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): **ROBBE, Michel** [FR/FR]; 36 bis, rue du Maréchal Maunoury, F-78700 Conflans-Sainte-Honorine (FR). **GUEGNAUD, Hervé** [FR/FR]; 41, rue de Noirmoutier, F-78310 Maurepas (FR).
- (74) Agents: **LOISEL, Bertrand et al.**; Cabinet Plasseraud, 65/67, rue de la Victoire, F-75440 Paris Cedex 09 (FR).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

## Declaration under Rule 4.17:

— of inventorship (Rule 4.17(iv)) for US only

[Continued on next page]

(54) Title: **VOLTAGE SHIFT CONTROL CIRCUIT FOR PLL**



(57) Abstract: A PLL structure comprises a PFD, a loop filter and a VCO, as well as a voltage shift capacitor (Ca) coupling the PFD and the VCO. A voltage shift control circuit (50) is placed in parallel with the voltage shift capacitor. This circuit comprises controlled charging means (51), which are designed to charge the voltage shift capacitor according to a channel control signal. It also comprises controlled pre-charging means (52) which are designed to accelerate the charging of the voltage shift capacitor by the controlled charging means. It further comprises controlled polarization means (53), designed to ensure the polarization of the input during the pre-charging of the voltage shift capacitor.



**Published:**

— without international search report and to be republished  
upon receipt of that report

*For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*